

## IMPROVEMENT FOR SCALABLE MULTIDIMENSIONAL RING NETWORKS

## ABSTRACT OF THE DISCLOSURE

The present invention provides a method, apparatus and article of manufacture for increasing network processing node interconnect capacity and reducing maximum hop count in a scalable multidimensional ring network by creating additional rings. Initially a node identification algorithm is selected and an initial network processing node in the scalable multidimensional ring network is selected as a first node in a new ring. The node identification algorithm is applied to the selected node to calculate a subsequent node in the new ring. The calculated node is then made the selected node. The applying and selecting steps terminate when applying the node identification algorithm to the selected node results in the calculated subsequent node being equal to the initial node, thereby creating the new ring. A new initial node is then selected and the new ring creation process continues. When a new initial node is selected that is already a member of a new ring the entire process terminates, thereby creating all the new rings in the new scalable multidimensional ring network.

0092221-2846460